



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,146	11/04/2003	Frank C. Smith JR.	50121	4832

22929 7590 09/13/2004

SUE Z. SHAPER, P.C.
1800 WEST LOOP SOUTH
SUITE 750
HOUSTON, TX 77027

EXAMINER

DINH, TIEN QUANG

ART UNIT	PAPER NUMBER
----------	--------------

3644

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/701,146

Applicant(s)

SMITH, FRANK C.

Examiner

Tien Dinh

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6/17/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 2, it is not understood what “only two significant horizontal surfaces” mean. It is vague and indefinite.

Claim 1, last line, “door type” is vague and indefinite.

Claim Rejections - 35 USC § 103

Claims 1-6, 8, 9, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton et al in view of Weaver et al and Rutan 4641800.

Sutton et al teaches an aircraft with two engines P mounted on the wings, yaw control surfaces R on the wing, and having no empennage. Sutton et al is silent on the door at the rear of the fuselage and the canard with pitch control surface. However, Weaver et al teaches that a door at the end of the fuselage is well known in the art. Rutan discloses that canards with pitch control surfaces are well known in the art.

Art Unit: 3644

It would have been obvious to one skilled in the art at the time the invention was made to have used doors at the end of the fuselage and canards in Sutton et al's system as taught by Weaver et al and Rutan 4641800 to easily load cargos and to increase maneuverability.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton et al as modified by Weaver et al and Rutan 4641800 as applied to claim 1 above, and further in view of Firestone.

Sutton et al as modified by Weaver et al and Rutan 4641800 discloses all claimed parts except for the tractor engine. However, Firestone discloses that tractor engines are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a tractor engine in Sutton et al's system as modified by Weaver et al and Rutan 4641800 and as taught by Firestone to increase thrust.

Response to Arguments

Please note that the term "type" is considered to be indefinite. See MPEP 2173.05(b) E.

The Examiner still maintains that the term "significant" in claim 1 is vague and indefinite. What qualify this as "significant?"

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the

Art Unit: 3644

teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the modification of the Sutton et al to include doors at the end of the fuselage and canards in Sutton et al's system as taught by Weaver et al and Rutan 4641800 to easily load cargos and to increase maneuverability in a valid motivation to combine. The addition of canard and doors at the rear would not destroy Sutton et al's teaching. The applicant is advised to look at *In re Norman A. Meinhardt* (157 USPQ 270) and *In re Aller et al* (105 USPQ 223) and *In re McKee et al* (37 USPQ 613) on the "negative" teaching of a reference. The fact that that Sutton et al discloses that there is difficulty in putting a canard in a flying wing aircraft would not prevent one skilled in the art from putting a canard in the flying wing aircraft to improve maneuverability. In any event, the Sutton et al reference teaches that in 1945, "canards" in front of an flying wing aircraft are well known in the art as pointed out by the applicant on section 1, lines 29-44. Therefore, the use of canards is very well known at least since 1945. The fact that one skilled in the art was having trouble in putting a canard in 1945 does not prevent one skilled in the art in 2003 from putting a canard in front of a flying wing aircraft. With computer controlled aircrafts with fly by wire, many aircrafts that were once deemed unflyable can now be flown. Please look at the B2 Bomber, for example. It was once considered that flying wing aircrafts were unstable. However, with the advent of smaller computer system that can be used in aircrafts, flying wing aircrafts can now fly safely.

Art Unit: 3644

Please note that the Examiner is modifying the Sutton et al reference and not the Rutan or Weaver et al reference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 703-308-2798. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD

J. E. Sullivan